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Monthly Engineering Report No. 10

25X1

Improvement of Wide-Band FM Radar
Detection Techniques

Period Covered: 1 July 1961 to 31 July 1961

DOCUMENT NO. 7

NO CHANGE IN CLASS. ☐

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General Comments

This report covers the tenth period of contract activity for improvement of FM radar detection techniques.

The job has been staffed technically by two senior engineers and four engineers. Design was concluded and fabrication was the principal effort of the period.

Activities of the Report Period

Fabrication and testing of the focusing antenna and scanner was completed. A vibration problem arose in the scanner and has been partially alleviated. An additional support bar and bearings has been specified to assist in the elimination of this problem. Receipt and installation is anticipated within a few weeks.

Transformers for the traveling-wave power supply were received and installed. The supply has been fully checked out and is operating satisfactorily.

Tuning forks, to be used for gated filters, were previously reported to have been shipped. After a significant waiting period the vendor was contacted. His shipment had been delayed because the magnets had been over-baked in the final encapsulation process. Full effort was assured in expediting a new delivery.

The Huggins HA-49D Traveling Wave Tube was returned to the vendor for credit after failing engineering tests for compliance with specifications. A new tube, the M2208-B, was ordered from Microwave Electronics Corporation. Thirty-day delivery was specified and full compliance with original specifications was accepted with the order.

Design work for the "front end" following the RF mixer has been completed. Fabrication of the final unit is in progress.

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Program for the Ensuing Period

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The effort for the following period will be reduced to accomplish only the remaining fabrication and testing.

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